

CLAIMS

I claim:

1. A method for authoring information relevant to a physical world, comprising:
detecting with an authoring device a first label associated with a first object; and
triggering, in response to detecting, a system for authoring content;
wherein the content is to be unambiguously bound to the first object and is to be rendered on a playback device during detection of the first label.
2. The method as recited in claim 1, wherein the system for authoring content is resident on the authoring device.
3. The method as recited in claim 1, wherein the authoring device and the playback device are integrated within a single apparatus.
4. The method as recited in claim 1, wherein the label is selected from a group consisting of a barcode label, a coordinate, a RFID tag, an IR tag, a time stamp, a text string, and any other label type whose information can be transformed to digital data by some transduction means.
5. The method as recited in claim 1, wherein the content is selected from a group consisting of audio, text, graphics, video, or a combination thereof.
6. The method as recited in claim 1, wherein the content is a link to a live agent.
7. The method as recited in claim 1, further comprising the steps of
detecting a second label associated with a second object;
triggering, in response to detecting, the system for authoring content which is unambiguously bound to the second object; and
aggregating the content bound to the first object and the second object into a single logical entity called a tour.
8. The method as recited in claim 1, further comprising the step of
detecting a second label associated with the first object and normalizing the first label and the second label such that the content bound to the first object can rendered during detection of either the first or second label in the playback mode.
9. The method as recited in claim 1, further comprising the step of storing the content in non-volatile memory resident in the apparatus.
10. The method as recited in claim 1, further comprising the step of uploading the content to a remote server.

11. The method as recited in claim 10, wherein the step of uploading is performed via a wireless network.
12. The method as recited in claim 10, wherein the step of uploading is performed via a wired network.
13. A computer-readable media having instructions for authoring information relevant to a physical world, the instructions performing steps comprising:
detecting a first label associated with a first object; and
triggering, in response to detecting, a system for authoring content to be unambiguously bound to the first object;
wherein the content is to be rendered during detection of the first label by a device in a playback mode.
14. The computer-readable media as recited in claim 13, wherein the instructions perform the further steps of
detecting a second label associated with a second object;
triggering, in response to detecting, a system for authoring content to be unambiguously bound to the second object; and
aggregating the content bound to the first object and the second object into a single logical entity called a tour.
15. The computer-readable media as recited in claim 14, wherein the instructions perform the further step of detecting a second label associated with the first object and normalizing the first label and the second label such that the content can rendered during detection of either the first or second label by the device in the playback mode.
16. A computer-readable media having instructions for authoring content to be associated with objects in a physical world, the instructions performing steps comprising:
normalizing a read object label associated with an object into an object identifier;
placing the object identifier into a index table repository;
accepting content to be rendered when the object label is read in a playback mode; and
binding the content to the object identifier in the index table repository.
17. The computer-readable media as recited in claim 16, wherein the instructions allow a plurality of different label types to be normalized to one object identifier.

18. A method for providing information relevant to a physical world, comprising:
detecting with a device a label associated with an object;
normalizing information contained in the detected label into an object identifier;
using the object identifier to search an index table repository to find content bound to the object identifier; and
rendering the content.
19. The method as recited in claim 18, further comprising the step of retrieving the content bound to the object identifier from local memory in the apparatus.
20. The method as recited in claim 18, further comprising the step of retrieving the content bound to the object identifier from a remote server.
21. The method as recited in claim 18, wherein the content is selected from a group consisting of audio, text, graphics, and video.
22. The method as recited in claim 18, wherein the label is selected from a group consisting of a barcode, a coordinate, an IR tag, a RFID tag, a timestamp, a text string, and any other label type whose information can be transformed to digital data by some transduction means .
23. The method as recited in claim 18, wherein the content is a connection to a live agent.
24. The method as recited in claim 18, further comprising the step of determining the current time and comparing the current time to the timestamp before rendering the content.
25. The method as recited in claim 18, wherein the step of rendering the content comprises streaming the content from a remote server.
26. The method as recited in claim 18, further comprising the steps of accepting annotations/feedback after the rendering of the content and binding the annotations/feedback to the object identifier.
27. The method as recited in claim 26, further comprising the step of storing the annotations/feedback in local memory.
28. The method as recited in claim 26, further comprising the step of storing the annotations/feedback in a remote memory.
29. A computer-readable media having instructions for providing information relevant to a physical world, the instructions performing steps comprising:
detecting a label associated with an object;
normalizing information contained in the detected label into an object identifier;

using the object identifier to search an index table repository to find content bound to the object identifier; and
rendering the content.

30. The computer-readable media as recited in claim 29, wherein the content is selected from a group consisting of audio, text, graphics, and video.
31. A method for providing information relevant to a physical world, comprising:
storing an object identifier indicative of a plurality of read labels associated with an object into an index table repository; and
using the index table repository to bind content to the object identifier and, accordingly, the object;
whereby the content is renderable when any one of the plurality of labels is detected in a playback mode.
32. The method as recited in claim 31, wherein at least one of the plurality of labels is already present on the object.
33. The method as recited in claim 31, further comprising the step of attaching at least one of the plurality of labels to the object.
34. The method as recited in claim 31, wherein the plurality of labels is selected from a group consisting of a barcode label, a coordinate, a RFID tag, an IR tag, a time stamp, a text string, or any other label type whose information that can be transformed to digital data by some transduction means.
35. The method as recited in claim 31, further comprising the steps of detecting the plurality of labels.
36. A method for providing information relevant to a physical world, comprising:
associating one or more labels with each of a plurality of objects in a tour;
storing an object identifier indicative of the one or more labels associated with each of the plurality of objects in the tour in an index table repository;
authoring content relevant to each of the plurality of objects in the tour; and
binding the content to an object identifier in the index table repository which corresponds to the relevant one of the plurality of objects in the tour whereby the content is renderable when the label is detected by a playback device without regard to the order in which the content was authored.

37. The method as recited in claim 36, wherein the labels are selected from a group consisting of coordinates, barcode labels, RFID tags, IR tags, timestamps, text strings, and any label type whose information that can be transformed to digital data by some transduction means.
38. A system for authoring and retrieving selected digital multimedia information relevant to a physical world, comprising:
- a plurality of machine readable labels relevant to the physical world;
 - an apparatus for detecting the machine readable labels and including programming for normalizing information contained in the detected label into an object identifier; and
 - a digital multimedia content collection accessible by the apparatus storing content indexed by the object identifiers.
39. The system as recited in claim 38, wherein the apparatus further comprises a system for authoring digital multimedia in response to detecting one of the plurality of labels which is to be stored within the digital multimedia content collection and unambiguously bound to the object identifier.
40. The system as recited in claim 39, wherein the apparatus further comprises a system for rendering digital multimedia in response to detecting one of the plurality of labels, the digital multimedia rendered being the content unambiguously bound to the object identifier associated with a detected label.
41. The system as recited in claim 40, wherein the digital multimedia content collection includes one or more of audio files, visual graphics files, text files, video files, XML files, hyperlink references, live agent connection links, programming code files, and configuration information files.
42. The system as recited in claim 40, wherein the apparatus comprises programming that renders digital multimedia as a function of output capabilities of the apparatus.
43. The system as recited in claim 38, wherein the tour is stored on one or more computer servers external to the apparatus.
44. The system as recited in claim 43, wherein the tour and the apparatus communicate via a wired network.
45. The system as recited in claim 43, wherein the tour and the apparatus communicate via a wireless network.

46. The system as recited in claim 45, wherein the wireless network comprises a cellular telephone network.
47. The system as recited in claim 38, wherein the tour resides on the apparatus.
48. The system as recited in claim 38, wherein the apparatus accesses the tour via the Internet.
49. The system as recited in claim 38, wherein the apparatus accesses the tour via a voice portal.
50. The system as recited in claim 38, wherein the apparatus accesses the tour via a cellular telephone voice mailbox.
51. The system as recited in claim 38, wherein the digital multimedia is aggregated into a tour.
52. The system as recited in claim 38, wherein the digital multimedia is randomly accessible by the apparatus.
53. The system as recited in claim 38, wherein the digital multimedia is accessible by the apparatus in a sequential order.
54. The system as recited in claim 38, wherein the apparatus comprises a personal digital assistant.
55. The system as recited in claim 38, wherein the apparatus comprises a cellular telephone.
56. The system as recited in claim 38, wherein the apparatus comprises purpose built devices targeted to a specific application.
57. An apparatus for authoring information relevant to a physical world, comprising:
circuitry for detecting a label associated with an object; and
a system for authoring content to be unambiguously bound to the object as represented by the detected label which content is to be rendered during detection of the label in a playback mode.
58. The apparatus as recited in claim 57, wherein the circuitry comprises a barcode reader.
59. The apparatus as recited in claim 57, wherein the circuitry comprises an IR tag reader.
60. The apparatus as recited in claim 57, wherein the circuitry comprises a RFID tag reader.
61. The apparatus as recited in claim 57, wherein the circuitry comprises a keyboard for inputting textual information.

62. The apparatus as recited in claim 57, wherein the circuitry comprises of analog to digital information transducer .
63. An apparatus for authoring and providing information relevant to a physical world, comprising:
- circuitry for detecting a label associated with an object; and
 - programming for normalizing information contained in the detected label into an object identifier;
 - a system for authoring content in an authoring mode which content is to be unambiguously bound to the object identifier; and
 - a system for rendering content in a playback mode, the content rendered being the content unambiguously bound to the object identifier associated with a detected label.
64. The apparatus as recited in claim 63, further comprising a communications link for downloading authored content to a remote location and for retrieving content from the remote location for rendering.
65. The apparatus as recited in claim 63, further comprising a memory for storing the content.
66. The apparatus as recited in claim 63, wherein the circuitry comprises a barcode reader.
67. The apparatus as recited in claim 63, wherein the circuitry comprises an IR tag reader.
68. The apparatus as recited in claim 63, wherein the circuitry determines a coordinate location.
69. The apparatus as recited in claim 63, wherein the circuitry is a RFID tag reader.
70. The apparatus as recited in claim 63, wherein the circuitry is an analog to digital information transducer .